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Before the FEDERAL COMMUNICATIONS COMMISSION Washington, D.C. 20554

PEDETAL COMMUNICATIONS COMMISSION OFFICE OF SECRETARY

In the Matter of)	
Replacement of Part 90 by Part 88 to Revise the Private Land Mobile))	PR Docket 92-235
Radio Services and Modify the Policies Governing Them)	TO A DECEMBER OF THE PROPERTY
Policies Governing mem	,	DOCKET FILE COPY ORIGINAL

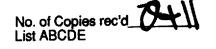
To: The Commission

COMMENTS OF NIPPON TELEGRAPH AND TELEPHONE COMPANY ON PETITIONS FOR RECONSIDERATION AND CLARIFICATION

Nippon Telegraph and Telephone Company ("NTT"), through counsel, hereby submits its comments on the Petitions for Reconsideration and Clarification that have been filed by various parties in response to the <u>Report and Order ("R&O")</u> issued in the above-captioned proceeding. 1/

NTT urges the Commission to remain resolute in its efforts to move to narrowband channelization. Specifically, the Commission should reject any proposal that suggests abandonment of the Commission's decision to encourage a rapid transition to very narrowband channelization (<u>i.e.</u>, 6.25 kHz or less) of the private land mobile radio spectrum. Indeed, to the extent that the Commission perceives the need to revisit the <u>R&O</u>, it should take the opportunity to maximize the benefits to be obtained through the use of very narrowband technology and provide a mechanism to encourage the use of 5 kHz technology.

Report and Order and Further Notice of Proposed Rulemaking, PR Docket No. 92-235, FCC 95-255 (June 23, 1995) ("R&O").



I. THE COMMISSION SHOULD REJECT PROPOSALS THAT WOULD ELIMINATE OR DELAY THE TRANSITION TO NARROWBAND TECHNOLOGY.

The Commission's $\underline{R\&O}$ is farsighted in that it recognizes that very narrowband technology will be commercially available, and viable, in the very near future, as demonstrated by overwhelming evidence in the record, and that to foster the widespread use of such equipment requires the promulgation of appropriate regulatory incentives. The vast majority of the petitions for reconsideration and clarification recognize this wisdom and do not request any modification of the transition timetable set forth in the $\underline{R\&O}$.

However, two dissenting voices -- a joint petition filed by Kenwood Communications, Uniden America and Maxon America (hereinafter, the "Joint Petition"), and a petition filed by APCO -- have urged the Commission to slow down or eliminate the transition to very narrowband channelization. Both petitions assert, without offering a scrap of tangible evidence, that the necessary technology is not sufficiently mature to be widely commercially available in the year 2005.

The Joint Petition states that manufacturers should have a three-year period in order to gear up to produce 12.5 kHz equipment, and should be further entitled to a delay of 15 to 20 years -- an entire generation of equipment -- before they should have to produce very narrowband equipment.²/ First, this

 $[\]frac{2}{}$ Joint Petition at 3.

position reflects a fundamental misunderstanding of the R&O, which does not mandate the production or use of any particular type of technology according to a fixed timetable. Under the R&O, any manufacturer would remain free to sell, and any user free to purchase and use, 25 kHz or 12.5 kHz equipment after 2005; after that date, manufacturers simply could not receive type acceptance for new models that do not meet the spectrum efficiency goals established by the Commission. The Commission is clearly not requiring manufacturers to make equipment for which no market exists; it is setting firm regulatory parameters that will induce the market to move as quickly as possible to narrowband technology.

Second, the Joint Petition suggests that very narrowband equipment is "essentially unproven." Such assertions fly in the face of substantial empirical evidence in the record regarding the viability of very narrowband technology. For its part, NTT has submitted extensive technical materials regarding its 5 kHz RZ SSB technology, including empirical results from field tests in the United States and Japan. Following its live demonstration of an RZ SSB mobile unit in Denver, Colorado, in March 1995, NTT received extremely favorable reactions and expressions of interest from manufacturers (including Maxon) and

See, e.g., Ex Parte Letter from Jeffrey Olson, dated April 25, 1995.

users alike. AZ SSB has also been recognized by the Technology Compatibility Committee of the Telecommunications Industry Association ("TIA") as "a viable bandwidth efficient linear technology for use in the land mobile arena." 5/

In stark contrast to the efforts of NTT (and other very narrowband technology advocates) to document the viability of spectrum efficient technology, the Joint Petition simply recites stale claims that such technology remains "unproven," ignoring entirely the record in this proceeding. There is simply too much hard, unrefuted evidence in the record demonstrating the viability of very narrowband technology for the Commission to abandon its policy goal of enhancing spectrum efficiency.

APCO's Petition for Reconsideration urges the

Commission to mandate a definitive timetable for transition by

public safety users to more spectrum efficient equipment. It

Id. See Letters from manufacturers and users in Appendices A and B of NTT's April 25, 1995, ex parte filing.

Letter from Dr. Gregory M. Stone, Co-chairman, TIA TR-8, Technology Compatibility WG8.8, to Paul J. Kollmer dated April 24, 1995, in Appendix C of NTT's April 25, 1995, ex parte filing.

See Joint Petition at 15-18. It should be noted that the Joint Petition, in order to buttress the "parade of horribles" that it claims will occur with the R&O's contemplated transition to very narrowband technology, quotes extensively from 1993 submissions from Motorola. Curiously, Motorola's petition for reconsideration indicates that it does not believe that the R&O will cause the problems cited in the Joint Petition. See Motorola Petition for Reconsideration and Clarification at 2.

advocates transition to 12.5 kHz equipment in all urban areas by 2005, but states that it is not necessary to identify a specific date for transition to $6.25 \text{ kHz}.^{2/}$

While NTT does not object to the suggestion that a fixed timetable for transition to more spectrum-efficient technology, APCO effectively advocates abandoning transition to very narrowband channelization. If the Commission were to mandate a fixed 10-year timetable for 12.5 kHz technology but remain silent regarding a transition to 6.25 or 5 kHz, it would essentially rob the R&O of all incentives for the use of very narrowband radio for public safety use.

NTT has no opinion regarding whether the Commission should mandate a fixed timetable for transition to spectrum efficient technology. If the Commission decides to do so, however, it should adopt a fixed timetable for transition to very narrowband technology and decline to mandate 12.5 kHz channelization as a transitional step. NTT firmly believes, and the evidence in the record squarely supports the conclusion, that a 10-year fixed timetable for transition from 25 kHz channels to 6.25 kHz or 5 kHz channels is feasible.

II. THE COMMISSION SHOULD RECONSIDER PORTIONS OF THE R&O AND MANDATE TRANSITION TO 5 kHz TECHNOLOGY.

NTT agrees with the Petitions for Reconsideration submitted by Midland International Corporation and Securicor

See Petition for Reconsideration and Clarification of APCO at 5-6.

Radiocoms Limited that seek a transition to a 5 kHz channelization plan, rather than the 6.25 kHz plan adopted in the R&O. A transition to 5 kHz technology could be implemented within the same timeframe set forth in the R&O (indeed, from a technical perspective, it could be accomplished much sooner) and would provide a substantial number of additional channels compared to 6.25 kHz channels.

NTT's RZ SSB technology can perform well within a 6.25 kHz or 5 kHz channel. NTT notes, however, that the decision of manufacturers to implement very narrowband technologies such as RZ SSB will be directly affected by the regulatory incentives that the Commission chooses to provide. If the Commission limits the transition contemplated by the R&O to 6.25 kHz, it may reduce the incentive for users to demand, or manufacturers to provide, more spectrum efficient technology.

Finally, NTT notes that the Commission should not be discouraged from selecting 5 kHz channelization as its goal out of fear that migration from 12.5 kHz to 5 kHz channels will be more complicated than migration to 6.25 kHz channels. Either migration path will entail identical technical complexities; complexities that lend themselves to readily available engineering solutions. A copy of NTT's 5 kHz migration path proposal submitted to the Project 25 Migration Working Group is attached hereto.

CONCLUSION

The Commission should promote spectrum use that is as efficient as technically possible and reject any proposals to turn the clock back on the goals and accomplishments of the Commission in this proceeding.

Respectfully submitted,

NIPPON TELEGRAPH AND TELEPHONE COMPANY

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September 21, 1995

CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing Comments of Nippon Telegraph and Telephone Company was, this 21st day of September, 1995, served by hand or by United States mail, first class postage prepaid, on the following:

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